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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,044	10/28/2003	Mu-Hyun Kim	1514.1034	3882
49455 7590 11/23/2007 STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			EXAMINER GARRETT, DAWN L	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 11/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/694,044

Applicant(s)

KIM ET AL.

Examiner

Dawn Garrett

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-11, 24, 26, 27 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11, 24, 26, 27 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

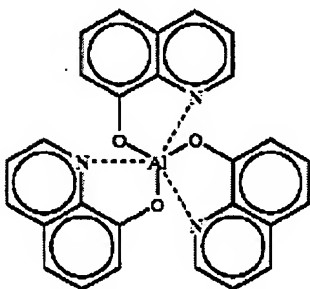
- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

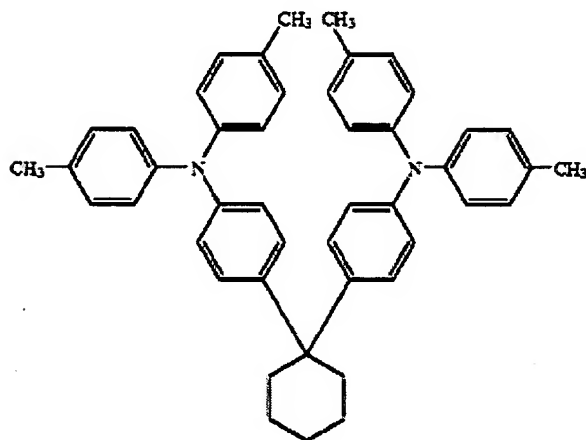
Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 3, 2007 has been entered.
2. The amendment filed October 3, 2007 has been entered. Claims 4, 12-23, 25, 28, and 29 are cancelled. Claim 30 has been added. Claims 1-3, 5-11, 24, 26, 27 and 30 are pending.
3. As stated in the previous Office action, the species under consideration are the following:

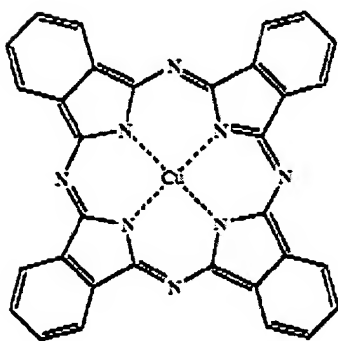
Formula I for the low molecular weight organic electroluminescent material
(shown in claim 3)



Formula 14 for the hole transmitting layer material (shown in claim 5)



Formula 19 for the hole injecting material (shown in claim 6)



1, 3,4 -oxadiazole derivative for the electron injecting layer material (shown in claim 7); and TAZ for the hole blocking material (claim 8).

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5, 7-11, 24, 26, and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kwon et al. (EP 0 851 714). Kwon et al. disclose a donor film for an organic electroluminescence device comprising a base film (substrate film), a light-absorbing layer (photothermal conversion layer) and a transfer layer formed of a luminous material (see abstract). All of the adhesion properties set forth in claim 1 are considered to be inherent to the donor film. One purpose of a donor film is to adhere better to the substrate onto which it is transferred as compared to the substrate it is leaving. The process limitations in claim 1 are not significant, because the product, a donor film, is being claimed. Kwon et al. discloses formula (1) for the transfer layer, which is identical to formula 1 of claim 3 with regard to the low molecular weight organic electroluminescent material (see page 4, lines 21-35). The transfer layer may further comprise hole transfer material and electron transfer material per claim 4 (see abstract). The hole transfer material may include formula (8), which is identical to Formula 14 of claim 5 (see page 6, lines 25-43). Kwon et al. further discloses 1, 3, 4-oxadiazole derivative as an electron transfer material per claim 7 (see page 6, lines 20-24). In addition, Kwon et al. discloses TAZ per claim 8 (see page 6, lines 20-24). The light absorbing layer (photothermal layer) is comprised of polymer containing carbon black, graphite or infrared absorbing dye (see page 4, lines 8-10) per claims 9 and 10. The base film (substrate film) is comprised of any transparent polymer including polyesters (see col. 4, lines 4-7). Kwon et al. further discloses a gas generating layer (see claim 15, page 18) with regard to claim 26. Kwon et al. is deemed to be sufficient to anticipate the claims; however, in the alternative that

Kwon et al. is not considered to be sufficient to anticipate these claims and their recited properties, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed a device comprising all the recited components, because Kwon et al. teaches all the materials to form such a device.

While Kwon does not use the express language "hole blocking layer", Kwon teaches a layer comprising preferred hole blocking layer material TAZ as set forth in dependent claim 8. Accordingly, the layer described as a "hole blocking layer" is the same as the layer comprising TAZ as disclosed by Kwon. The properties of the TAZ compound are inherent. Furthermore, electron transporting materials are known in the art as having a hole blocking function as evidenced by the discussion of electron transport materials and their hole blocking property in U.S. Patent No. 5,869,199 at col. 7, lines 38-52.

The property recited in claim 30 is taught by the reference, because the donor substrate is removed when the transfer layer is applied to the receiving substrate. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. *In re Fitzgerald*, 205 USPQ 597, *In re Best*, 195 USPQ 430.

6. Claims 1-3, 6-9, 11, 24 and 30 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Akai (US

2003/0045021). Akai discloses transfer donor films for organic electroluminescent devices (see abstract and par. 82). The donor film comprises a base film (substrate) formed of a polymer such as PET (see par 84) and an organic film (see par. 87). The organic film (transfer layer) comprises multiple layers (see par. 87-89). One of those layers of the organic film may be a light emitting layer comprising Alq3 per Formula 1 of claim 3 (see par. 93). A further layer may comprise the following materials: CuPc (per claim 6), oxadiazole compounds (per claim 7), and triazole derivatives (per claim 8) (see par. 95 and 96). A light to heat conversion layer is formed on the base film per the photothermal film (see par. 86). Akai is deemed to be sufficient to anticipate the claims; however, in the alternative that Akai is not considered to be sufficient to anticipate these claims and their recited properties, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed a device comprising all the recited components, because Akai teaches all the materials to form such a device.

While Akai does not use the express term "hole blocking layer", Akai teaches a layer comprising preferred hole blocking layer materials as set forth by applicant in dependent claim 8 (i.e. triazole derivatives). The properties of the Akai compound and applicant's hole blocking compound are the same since they are the same materials. Furthermore, electron transporting materials are known in the art as having a hole blocking function as evidenced by the discussion of electron transport materials and their hole blocking property in U.S. Patent No. 5,869,199, at col. 7, lines 38-52.

The property recited in claim 30 is taught by the reference, because the donor substrate is removed when the transfer layer is applied to the receiving substrate.

7. Claim 27 is again rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al. (EP 0 851 714) in view of Fujita et al. (US 2003/0008224). Kwon et al. is relied upon as set forth above. Kwon et al. discloses a gas generating layer (see claim 15, page 18) with regard to claim 26, but fails to set forth the specific gas-generating compounds of claim 27. Fujita et al. teaches in analogous art an exemplary gas-generating layer comprising either PETN or TNT (see par. 59). It would have been obvious to one of ordinary skill in the art at the time of the invention to have selected either PETN or TNT as a gas-generating material of the gas-producing layer of the donor film taught by Kwon, because Fujita et al. teach PETN or TNT as gas-generating material in the art.

Response to Arguments

8. Applicant's arguments filed October 3, 2007 have been fully considered but they are not persuasive.

The prior office action states that electron transporting materials are known in the art as having a hole blocking function. With regard to all of the rejections over Kwon and the rejection over Akai, applicant argues they do not teach a "hole blocking layer". Applicant argues the evidentiary reference, Kido, discloses TAZ is excellent in both electron-transport properties and hole blocking properties and accordingly, TAZ has multiple properties and it not necessarily hole-blocking. This argument is not persuasive, because even if TAZ has additional properties, it is exactly the same material as required by applicant. The claims are drawn to layered products. The hole blocking layer set forth in the claims is comprised of exactly the same material as a

layer taught in the prior art. In addition, the donor film is for making an EL device and none of the properties such as hole-blocking or electron-transporting are actually exhibited unless the materials of the donor film are actually present in an EL device and an electric current is applied. The donor film is an intermediate product in route to forming an EL final product. Additionally, it is noted that the claims do not expressly exclude TAZ from being both electron-transporting and hole-blocking.

Also with respect to Akai, applicant argues Akai teaches using Alq3 in more than one layer and also discloses using more than one material. The examiner submits that it is well known in the EL art that Alq3 may be used in electron injecting and transporting layers and in a luminescent layer. Recitation of Alq3 in an electron injecting layer is not novel. Applicant's argument that Akai does not teach the feature is not persuasive. The open claim language does not prevent Alq3 from being present in other layers.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Dawn Garrett/
Dawn Garrett
Primary Examiner
Art Unit 1794

November 20, 2007